Exhibit C

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

COBBLESTONE WIRELESS, LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CASE NO. 2:23-CV-00454-JRG-RSP
	§	(Lead Case)
CISCO SYSTEMS, INC.,	§	
	§	
Defendant.	§	

CLAIM CONSTRUCTION ORDER

In these consolidated cases, Cobblestone Wireless, LLC, alleges infringement by Cisco Systems, Inc., Hewlett Packard Enterprise Company, and Aruba Networks, LLC, (together, "Defendants") of claims from U.S. Patent 7,924,802, which relates "to wireless communication systems and methods." '802 Patent at 1:6–7. The parties have only one claim-construction dispute, which concerns "center frequency" in Claim 1. Having considered the briefing, along with arguments of counsel during a November 26, 2024 hearing, the Court construes "center frequency" as "a frequency at the middle of the frequency range."

I. BACKGROUND

The patent opens with a description of a prior-art transmitter. As shown in Figure 1 (below), the transmitter includes a digital-to-analog converter (110), a filter (120), a mixer (130), a power amplifier (140), and an antenna (150). In such a transmitter, "the amount of information transmitted around the center frequency is limited by the bandwidth of the transmitter around the center frequency." '802 Patent at 1:32–34. "Typical prior art approaches to improving information capacity . . . involve maximizing the bandwidth around the center frequency to increase the amount of

information that may be modulated onto the carrier frequency." *Id.* at 1:35–40. Moreover, the amount of power that may be transmitted at a given frequency might be regulated, which affects reliability of the system. *Id.* at 1:41–49.

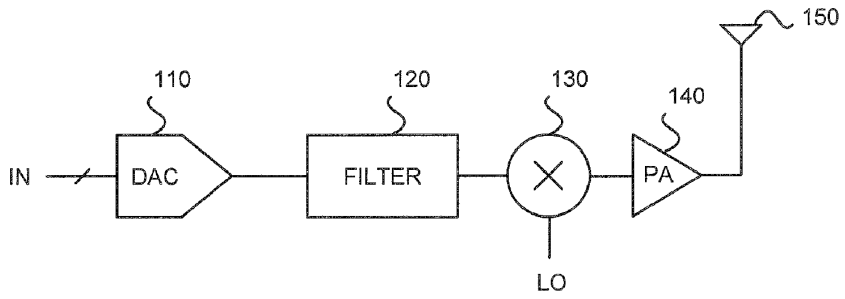


FIG. 1 of the '802 Patent (prior art)

To improve these types of prior-art systems, especially the reliability and range issues, the patent teaches a system that can transmit data at two different frequencies. The Abstract calls out an embodiment that sends the *same* data "over a transmission channel at two different frequencies to improve reliability." '802 Patent at [57]. Elsewhere, however, the patent explains the system may divide the data between the two transmitter channels. *See, e.g.*, *id.* at 6:1–4 (explaining the baseband digital system "may deserialize a data stream (e.g., using a demultiplexing function) to divide data packets between the two transmitter channels").

As shown in Figure 2 (below), one embodiment of the claimed system includes two of the prior-art transmitters shown in Figure 1, but with the mixers (or "up-converters") connected to a synthesizer (207) that generates first and second center frequencies (f_1, f_2) provided to the up-converters (205, 206). Analog signals from the digital-to-analog converters (201, 202) are up-

converted around the two center frequencies, with a representation of a typical signal shown in Figure 3 (below).[1]

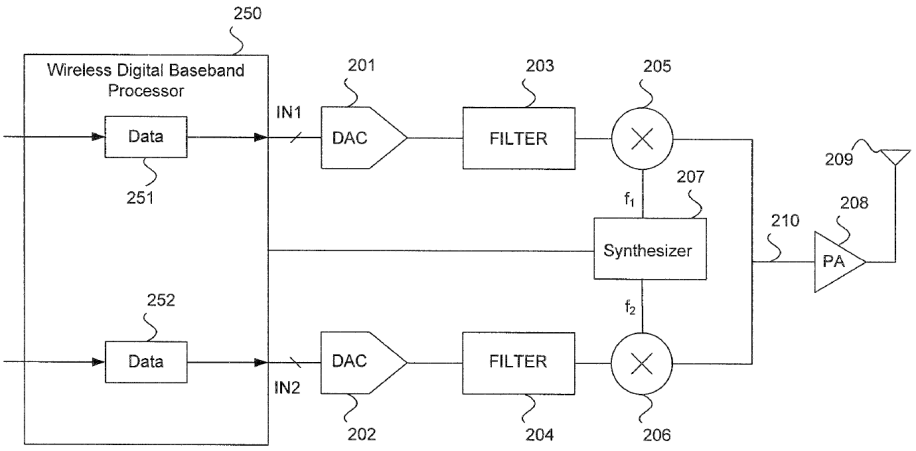


FIG. 2 of the '802 Patent

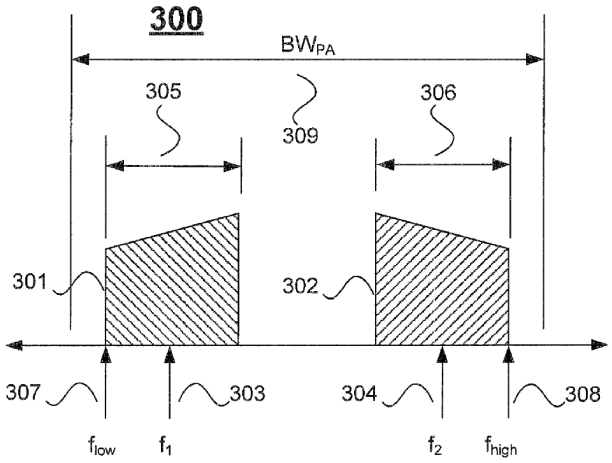


FIG. 3 of the '802 Patent

[1] "Up conversion" means shifting a signal that is at too low of a frequency "to be effectively or feasibly transmitted over a wireless system" to a higher frequency that can be effectively transmitted. Cooklev Decl., Dkt. No. 64-2 ¶¶ 39–40.

The patent includes both system and method claims, but only Claim 1 is at issue for claim construction:

> 1. A method of transmitting information in a wireless communication channel comprising:
>
> transmitting first information across a first frequency range using a wireless transmitter, the first frequency range having a *first center frequency*, a first highest frequency, and a first lowest frequency; and
>
> simultaneously transmitting second information across a second frequency range using the same wireless transmitter, the second frequency range having a *second center frequency* greater than the *first center frequency*, a second highest frequency, and a second lowest frequency.

'802 Patent at 13:59–14:3 (emphasis added). The parties only dispute the scope of "center frequency."

II. LEGAL STANDARDS

A. Generally

"[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.,* 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*). As such, if the parties dispute the scope of the claims, the court must determine their meaning. *See, e.g., Verizon Servs. Corp. v. Vonage Holdings Corp.,* 503 F.3d 1295, 1317 (Fed. Cir. 2007) (Gajarsa, J., concurring in part); *see also Markman v. Westview Instruments, Inc.,* 517 U.S. 370, 390 (1996), *aff'g,* 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*).

Claim construction, however, "is not an obligatory exercise in redundancy." *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). Rather, "[c]laim construction is a matter of [resolving] disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims . . . ." *Id.* A court need not "repeat or restate every

claim term in order to comply with the ruling that claim construction is for the court." *Id.*

When construing claims, "[t]here is a heavy presumption that claim terms are to be given their ordinary and customary meaning." *Aventis Pharm. Inc. v. Amino Chems. Ltd.,* 715 F.3d 1363, 1373 (Fed. Cir. 2013) (citing *Phillips,* 415 F.3d at 1312–13). Courts must therefore "look to the words of the claims themselves . . . to define the scope of the patented invention." *Id.* (citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.,* as of the effective filing date of the patent application." *Phillips,* 415 F.3d at 1313. This "person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.*

Intrinsic evidence is the primary resource for claim construction. *See Power-One, Inc. v. Artesyn Techs., Inc.,* 599 F.3d 1343, 1348 (Fed. Cir. 2010) (citing *Phillips,* 415 F.3d at 1312). For certain claim terms, "the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." Phillips, 415 F.3d at 1314; *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history."). But for claim terms with less-apparent meanings, courts consider "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean . . . [including] the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning

of technical terms, and the state of the art." *Phillips,* 415 F.3d at 1314.

B. Implicit Lexicography

Although "[t]he words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history," there are two exceptions: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). "To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning." *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp*., 288 F.3d 1359, 1366 (Fed. Cir. 2002)). This may be done expressly or implicitly, but any implied redefinition "must be so clear that it equates to an explicit one. In other words, a person of ordinary skill in the art would have to read the specification and conclude that the applicant has acted as its own lexicographer." *Id.* at 1368. "Simply referring to two terms as alternatives or disclosing embodiments that all use the term the same way is not sufficient to redefine a claim term." *Id.*

III. THE LEVEL OF ORDINARY SKILL IN THE ART

The level of ordinary skill in the art is the skill level of a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In resolving the appropriate level of ordinary skill, courts consider the types of and solutions to problems encountered in the art, the speed of innovation, the sophistication of the technology, and the education of workers active in the field. *Id.* Importantly, "[a] person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

None of the parties proposes a level of ordinary skill in its briefing. Plaintiff, however, submits a declaration from a co-pending IPR in which its expert applied the following skill level:

> at least a Bachelor's degree in Electrical Engineering or an equivalent field, and at least two years of work experience in developing wireless communications product based upon IEEE 802 standards. Alternatively, a POSITA would have had a more advanced degree, such as a Master's degree in Electrical Engineering or an equivalent field, combined with at least one year of work experience in developing wireless communications products based upon IEEE 802 Standards.

Cooklev Decl., Dkt. No. 64-2 ¶ 24. The Court adopts this general level of skill, but limits the level of education to a Bachelor's degree in Electrical Engineering or an equivalent field and the amount of work experience to two years.

IV. THE DISPUTED TERMS: "first center frequency" and "second center frequency" ('802 Patent, Claim 1)

Plaintiff's Construction	Defendants' Construction
"the frequency of the carrier that the baseband signal is upconverted to"	Plain and ordinary meaning ("a frequency at the middle of the frequency range," *see* Dkt. No. 68 at 11).

In support of its construction, Plaintiff points to the patent's use of "'center frequency' more than 90 times, including in its background of the invention and in every embodiment." Dkt. No. 64 at 6. Much of Plaintiff's briefing quotes Dr. Cooklev's IPR declaration, after which Plaintiff concludes the patent uses "center frequency" and "carrier frequency" interchangeably. *See id.* at 7–12 (quoting Cooklev Decl., Dkt. No. 65-2 ¶¶ 39–51, and '802 Patent at 10:64–11:20). Plaintiff denies importing limitations into Claim 1, and instead asserts the term's meaning is "perfectly clear in view of the intrinsic record." Dkt. No. 70 at 2.

Defendants accuse Plaintiff of trying "to import from the specification the concept of an up-converted baseband signal based on what it argues is the inclusion of that concept in certain

embodiments described in the specification." Dkt. No. 68 at 9. They note the patent discloses an embodiment in which center frequencies are shifted within the bandwidth of the power amplifier *after* the up-conversion, which itself then has new center frequencies not the result of up-conversion. *Id.* at 10 (citing '802 Patent at 7:29–31). They also point to other claims that reference up-conversion and up-converters. *Id.* (referencing Claims 10–24). Finally, they cite 47 C.F.R. § 22.99, which defines "center frequency" as "the frequency of the middle of the bandwidth of a channel." *Id.* at 11.

The Court agrees with Defendants. Plaintiff relies on an "implicit definition" argument based on what it says is the patent's repeated, consistent, and exclusive use of "center frequency" in every embodiment to mean the carrier frequency to which the baseband signal is upconverted. Dkt. No. 64 at 14. But as the Federal Circuit has repeatedly held, "that embodiments (or even every embodiment) in the specification depict a particular arrangement or structure does not require reading that arrangement or structure into the claims." *Ethicon LLC v. Intuitive Surgical, Inc.,* No. 2020-1528, 2021 WL 3716397, at *4 (Fed. Cir. 2021). Any "'implied' redefinition must be so clear that it equates to an explicit one." *Thorner*, 669 F.3d at 1362.

Here, there is no such clarity, as evidenced in part by the other independent claims that specifically recite "up-converted" or "down-converted" frequency ranges. For example, Claim 10 recites:

> 10. A method of transmitting information in a wireless communication channel comprising:
>
> receiving a first digital signal comprising first data to be transmitted;
>
> receiving a second digital signal comprising second data to be transmitted;
>
> converting the first digital signal into a first analog signal using

> a first digital-to-analog converter, the first analog signal carrying the first data across a first frequency range;
>
> converting the second digital signal into a second analog signal using a second digital-to-analog converter, the second analog signal carrying the second data across a second frequency range;
>
> *up-converting* the analog signal to a first RF center frequency to produce a first up-converted analog signal, wherein the first up-converted analog signal comprises a first *up-converted frequency range* from the first RF center frequency minus one-half the first frequency range to the first RF center frequency plus one-half the first frequency range;
>
> *up-converting* the second analog signal to a second RF center frequency greater than the first center RF frequency to produce a second up-converted analog signal, wherein the second up-converted analog signal comprises a *second up-converted frequency range* from the second RF center frequency minus one-half the second frequency range to the second RF center frequency plus one-half the second frequency range . . . .

'802 Patent at 14:42–15:20 (emphasis added). So where Claim 1 simply recites "frequency ranges" characterized by center frequencies, Claim 10 recites "up-converted frequency ranges," also characterized by center frequencies. This strongly implies a "frequency range" is not inherently upconverted, even in the context of this patent. *See Phillips*, 415 F.3d at 1314 ("[T]he claim in this case refers to 'steel baffles,' which strongly implies that the term 'baffles' does not inherently mean objects made of steel."); *see also Thorner*, 669 F.3d at 1368 ("If the applicant had redefined the term 'attached' to mean only 'attached to an outer surface,' then it would have been unnecessary to specify that the attachment was 'to [an] outer surface' in the specification." (brackets in original)). Accordingly, because "center frequency" characterizes more than just up-converted frequency ranges, that shows a "center frequency" is not inherently tied to an up-converted frequency

range. It also undercuts any notion the applicants *intended* to redefine the "center frequency," which is a requirement of lexicography. *See Thorner*, 669 F.3d at 1365 (noting "the patentee must 'clearly express an intent' to redefine the term" (quoting *Helmsderfer v. Bobrick Washroom Equip., Inc*., 527 F.3d 1379, 1381 (Fed. Cir. 2008)).

Plaintiff calls *In re Abbott Diabetes Care Inc.*, 696 F.3d 1142 (Fed. Cir. 2012), "particularly instructive." Dkt. No. 64 at 13. In *Abbott*, the patentee appealed the Board's construction of "electromechanical sensor" in claims of two related patents directed to devices for monitoring an analyte in a patient's bloodstream. During reexamination, the Board considered whether the recited sensor included external wires and cables, ultimately concluding it did. Applying that construction, the Board then held many of the claims unpatentable. *Abbott*, 696 F.3d at 1147–48.

On appeal, the Federal Circuit held the Board's construction of "electromechanical sensor" was unreasonable and inconsistent with the claim language and the specification. *Abbott*, 696 F.3d at 1149. For one, the claims suggested connectivity without using wires or cables by reciting conductive contact pads. *Id.* And the specification disparaged the external cables and wires of prior-art sensors. *Id.* "In fact," said the court, "the primary purpose of the invention was to provide 'a small, compact device that can operate the sensor and provide signals to an analyzer without substantially restricting the movements and activities of the patient.'" *Id.* (quoting the patents at issue).

The Court then wrote the language to which Plaintiff now points:

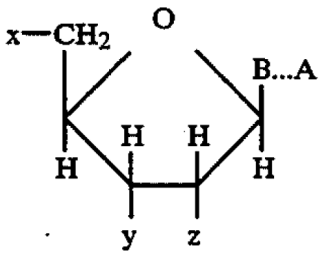
> Even more to the point, every embodiment disclosed in the specification shows an electrochemical sensor without external cables or wires. . . . Here, Abbott's patents "repeatedly, consistently, and exclusively" depict an electrochemical sensor without external cables or wires *while simultaneously disparaging sensors with external cables or wires*.

Abbott, 696 F.3d at 1149 (emphasis added). Thus, the court did not hold it was enough that all the embodiments were consistent, but also considered the simultaneous disparaging of sensors *with*

external cables or wires.

Plaintiff shows no such disparagement here. Rather, Plaintiff suggests the specification discloses only one way of executing the transmitting step, and therefore the step should be limited to that one way. And even if the Court were to give great weight to what Dr. Cooklev calls a "major focus of the invention," *see* Cooklev Decl., Dkt. No. 64-2 ¶ 44, that focus is covered by other claims that recite up-conversion, like Claim 10.

Plaintiff also cites *Enzo Biochem, Inc. v. Applera Corp.*, 780 F.3d 1149 (Fed. Cir. 2015), but that case is distinguishable as well. In *Enzo*, Claim 1 of the patent at issue concerned:

> 1. An oligo- or polynucleotide containing a nucleotide having the structure:
>
> 
>
>
> wherein B represents a 7-deazapurine or a pyrimidine moiety covalently bonded to the $C^{1'}$-position of the sugar moiety, provided that whenever B is a 7-deazapurine, the sugar moiety is attached at the N^9-position of the 7-deazapurine, and whenever B is a pyrimidine, the sugar moiety is attached at the N^1-position of the pyrimidine; [and]
>
> wherein A comprises at least three carbon atoms and represents at least one component of a signaling moiety capable of producing a detectable signal . . . .

Enzo, 780 F.3d at 1152. The parties disputed whether "A" could itself be the recited "signaling moiety" despite the claim language's recitation that "A" is a "*component* of a signaling moiety." *Id.* at 1155. The court held the plain meaning of the claim language meant "A" cannot be the whole signaling moiety. *Id.* The specification simply bolstered that conclusion, as "[t]hroughout the '767

patent, the inventors repeatedly emphasized that 'A' in combination with other chemicals, forms a signaling moiety[,] not that 'A' itself can be a signaling moiety." *Id.*

Notably, the *Enzo* court started its analysis by emphasizing, "[t]o the extent possible, 'the words of a claim are generally given their ordinary and customary meaning." *Id.* at 1153–54. Here, the Court can do that. Because the Court sees no basis for meeting the exacting standard of lexicography, the Court will give "center frequency" its ordinary meaning of "a frequency at the middle of the frequency range."

V. CONCLUSION

Disputed Term	The Court's Construction
"first center frequency" / "second center frequency" (Claim 1)	"a frequency at the middle of the [first/second] frequency range"

The Court **ORDERS** each party not to refer, directly or indirectly, to its own or any other party's claim-construction positions in the presence of the jury. Likewise, the Court **ORDERS** the parties to refrain from mentioning any part of this opinion, other than the actual positions adopted by the Court, in the presence of the jury. Neither party may take a position before the jury that contradicts the Court's reasoning in this opinion. Any reference to claim construction proceedings is limited to informing the jury of the position.

SIGNED this 6th day of December, 2024.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE